

CHAPTER 12

The Future



This study, like other major ecosystem assessments, raises our understanding to a new level. In the process, many new questions and uncertainties are revealed. Weaknesses in how existing knowledge has been used become apparent. The need to know and to use knowledge wisely is unending. The need to refine the delicate relationship between how we use and extract resources from the Sierra Nevada and how we live in the mountain range will continue. The Sierra Nevada is also a treasure for those who live around the nation and the world. Its future condition involves this wider interest.

With the end of this project a new process begins. The people must examine the ideas and test them against their own sense of validity and need for change. Several major themes are present in this report.

First, we have identified problem areas and offered some alternatives for addressing them. In some cases, problems have emerged because of unintended outcomes of use of resources and, in others, because of a change in social values. Left unresolved is the question of whether our society has the will and the capability to correct such problems. Implementation of new approaches or possible solutions is the responsibility of the public and its institutions. The beginning is to acknowledge that problems exist: willing minds and able hands can find solutions.

Second, most of the problems of the Sierra can be solved, although the timescale and degree of solution will differ depending on the problem. For example, economic conditions, wildlife habitat, forest structure, and community well-being are restorable. Reduction of damaging air pollution could

occur in a matter of days, but restoration of complex forest structure might take a century and recovery of degraded river channels, even longer.

One problem that is irreversible is loss of species and loss of distinct populations of species. There is a well-known parable about wisdom: does the wise person eat the seed corn or plant the seed corn? Plant, of course, for the future. But if one is already starving, the outcome will be the same regardless of the choice. Options exist now for charting the course toward restoration. Failure to use these options increases the chance of irreversible loss and reduces the range of options over time.

Third, because our understanding of complex human communities and ecological systems is never perfect, all strategies for improvement are in some ways experiments. Learning as we go and adjusting as necessary work best when we give as much care and planning to measuring the response to new management strategies as we do to implementing them. Changes in our agencies and institutions will be necessary to adjust this balance between measuring outcomes and implementing new management. Monitoring designs that compare different approaches among agencies and private landowners could have the added value of collaborative efforts, sharing of resources and expertise, and more efficient testing of alternatives. The blessings of abundant resources may have allowed us to temporarily avoid the questions of sustainability and to establish highly independent resource agencies. The future may not allow the luxury of either.